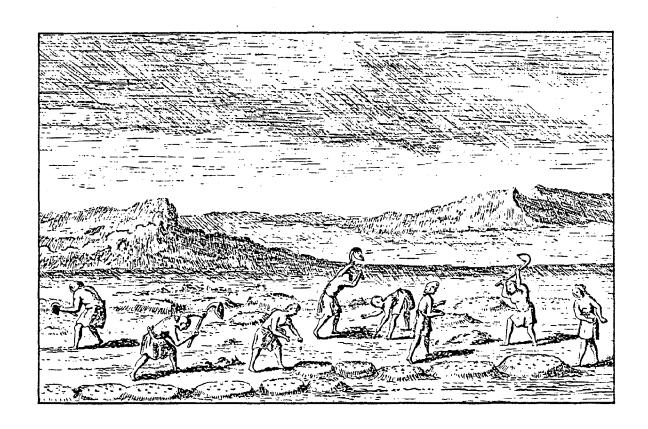
A MANAGEMENT PLAN FOR PREHISTORIC ARCHEOLOGICAL RESOURCES IN RHODE ISLAND'S COASTAL ZONE

VOLUME I



Rhode Island Historical Preservation Commission Providence, Rhode Island August 1982

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TASK 6.5 - HISTORICAL PRESERVATION COMMISSION

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END OF YEAR PERFORMANCE REPORT,
Task 6.5
ARCHEOLOGICAL RESOURCES

By: Rhode Island Historical Preservation Commission 150 Benefit Street Providence, Rhode Island 02903

For: Office of Coastal Zone Management Washington County Government Center Wakefield, Rhode Island 02879

Task 6.5

Award #NA-80-AA-D-CZ121

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I. SUMMARY INTRODUCTION

The 1982 Coastal Resources Management Work Program contained provisions for archeological testing of permit applications submitted to the Coastal Resources Management Council (CRMC). These provisions enabled the Rhode Island Historical Preservation Commission to identify and evaluate archeological sites within permit areas and to carry out protective measures when appropriate.

Commission involvement was initiated in 1980 and in 1981 a two-volume management plan for prehistoric resources was presented to the Council. A Management Plan for Prehistoric Resources in Rhode Island's Coastal Zone included a map showing sites on the National Register of Historic Places, sites considered eligible, as well as other sites potentially eligible. Each site was described, the evaluation process was described, and a management plan was presented. In summary, the plan recommended that the Council:

- continue the involvement of Commission archeologists in the permit review process;
- use predictive model to discourage development in high resource sensitivity areas;
- use existing mechanisms for resource preservation and conservation.
 These include landowner cooperation, conferring state landmark status or National Register status, and conducting archeological data recovery;
- explore new mechanisms for resource preservation. These include construction of erosion-slowing devices such as gabions to reduce damage to sites caused by storms and tidal action.

In addition to these activities, the Commission should continue to identify, evaluate, and protect coastal resources through its Federal and State review functions, its survey and planning grants, and through its ability to involve the public in preservation issues.

The plan emphasizes Council involvement. Without active Council review and support for the plan's components, the management of archeological resources will be ineffective.

The 1982 program had two major goals:

- (1) continue update of coastal site files.
- (2) refine predictive models.

The refinement of predictive models is particularly important as program funding levels are decreased. The application of predictive models can reduce agency review time and help to discourage development in areas that might involve major recovery costs or redesign.

This report presents an updated site inventory, a predictive model for the Great Creek area of Jamestown Island, and provides a case study showing how the Commission collects and processes information for use in developing site protection plans with landowners. In addition, it evaluates the 1982 implementation of the 1981 Management Plan, and highlights problems that were noted at the 312 review meeting in December, 1981 (appendix 1).

11. PREHISTORIC RESOURCES IN RHODE ISLAND'S COASTAL ZONE

2.1 Site Designations

The 1981 Management Plan classified prehistoric resources into four categories that represent the process by which sites are evaluated for National Register significance: (1) Sites on the Register, (2) sites in process of being considered for listing on the Register, (3) sites potentially eligible to the Register, and (4) sites not eligible to be listed on the Register. This last category, while containing sites that are not eligible to the Register, nonetheless contains noteworthy sites that are important for constructing locational models. All sites are initially placed in category 3, potentially eligible to the Register. As sites are evaluated they are placed in category 2, sites in the process of being considered for listing on the Register. Following evaluation, sites are placed into category 1, the National Register, if determined significant, or category 4 if determined not to be significant. Table 1 gives the number of coastal zone sites in each category as of June 30, 1982:

Site designation	# Sites
National Register	7
In process of being considered for listing on National Register	29
Sites potentially eligible for listing on National Register	118
Sites not eligible for the National Register	23
Total	<u>177</u>

Table 1: Site Designations

2.1.1 Sites on the National Register

These sites have received intensive investigations demonstrating that the site contains information important to the prehistory of the region. Most prehistorians working in the Narragansett Basin, and the northeastern United States interpret their findings within a cultural ecological framework that seeks to understand the relationship between the past environments and prehistoric populations. As such, any information contained in a site that pertains to what the environment was and how past populations were adapted to it is important and contributes strongly in considering whether or not a site is eligible to the National Register. Such categories of information can include preserved floral and faunal remains, storage and cooking facilities,

and the tools used to procure, process, and consume food. Thus, for example, the Greenwich Cove site, RI 193, was listed on the National Register because it contained well-preserved, undisturbed examples of these data categories, featuring an extensive shell midden containing bone and plant material, human burials, and stone tools. It is extremely important that a site's contents be undisturbed; i.e., have good integrity. Without this condition, it is rare that a site, although it may contain suitable material, be considered for the National Register. Integrity, then, is an essential quality, and only sites possessing physical integrity are evaluated for the contributions they can make to understanding how past populations interacted with their environment.

2.1.2 Sites in the process of being considered for listing on the National Register

This grouping consists of two major subgroups of sites:

- (1) sites that Commission archeologists are currently evaluating for National Register status. It is very likely that these sites will eventually be placed on the National Register. All contain integrity and possess data categories necessary for Register listing.
- (2) sites that are being evaluated for Register status as part of the federal compliance process. Sites to be impacted or likely to be impacted by federal activities must be evaluated for National Register status before that activity proceeds. Thus, for example, the Jamestown Bridge site, RI 711, located in the right-of-way of the proposed Jamestown Bridge replacement project, was evaluated and determined eligible to the National Register by the Secretary of Interior.

Currently, no prehistoric sites in the coastal zone are in the second subgroup. All twenty-nine sites in this category are being evaluated by Commission archeologists and the liklihood of eventual listing is high. We strongly recommend that coastal zone managers and planners treat these sites as if they were on the Register and therefore take all possible measures to avoid damaging them.

2.1.3 Sites potentially eligible to National Register

This is the largest single category of coastal zone sites. These sites have not yet been considered for National Register status and as a group possess a wide range of recorded information. For example, RI 106, 109, 110, 221, 222, and 223 were recorded from a 1929 article in the Rhode Island Historical Society Collections. In the 1920s, these coastal zone sites were known to be the locations of impressive archeological remains, but no recorded information beyond their locations has survived to the present. Until the Commission obtains enough information to evaluate the integrity and information content of these sites, they must be considered "potentially eligible." The Commission is seeking to narrow the list of "potentially eligible sites" by first ascertaining

their exact locations, and then conducting limited evaluations of integrity and information content. Such a study was done on the east side of Narragansett Bay in 1981 and several sites were determined not eligible for listing on the Register because they lacked integrity.

2.1.4 Sites not eligible to be listed on the National Register

Sites in this category consist of two major kinds: those sites that have received intensive work and have been found not to be of National Register quality (Ri 112, 115, 116, and 268, for example) and those sites that were badly destroyed before information could be obtained (Ri 289, for example). Since these sites are primarily important for the information on site location useful for formulating locational models, they need not be given high priority in planning decisions. However, their presence indicates the potential for other sites in the area, and therefore any plans for land modifying should be undertaken with care to detect and avoid any remaining sites in the area.

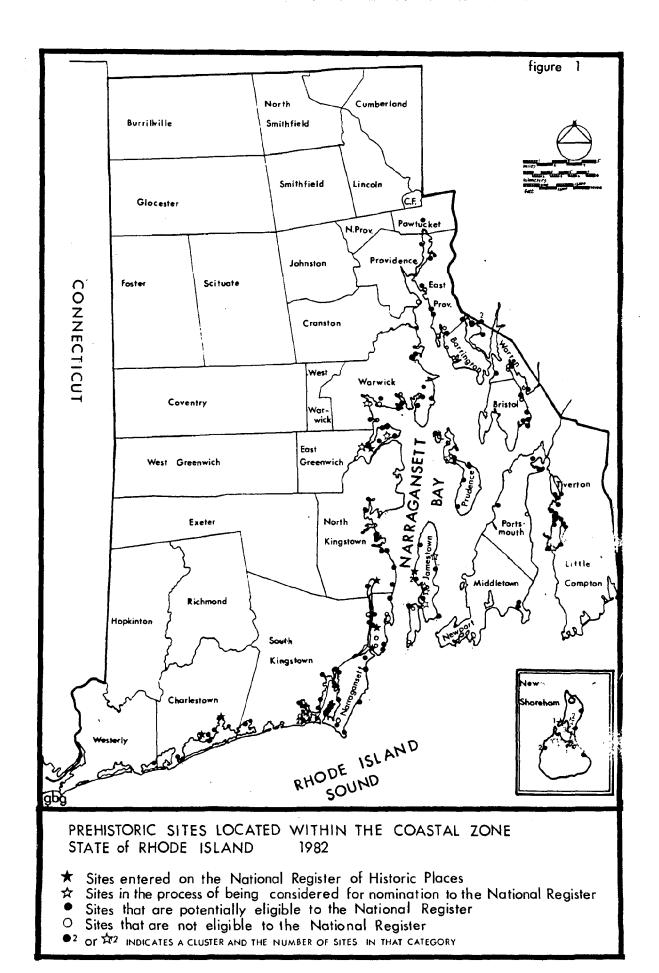
2.2 An Updated Inventory of Prehistoric Resources in Rhode Island's Coastal Zone

This inventory lists sites located during the period July 1, 1981 through June 30, 1982. For a complete listing, the 1981 Management Plan should be consulted. Site descriptions are brief. Individuals interested in obtaining more information about specific sites should contact the Commission.

Site locations are shown at two map scales. The first map (Figure 1), shows all 177 sites on a state overview map. The second representation shows site locations on U.S.G.S. 7.5 minute quadrangle maps for sites recorded between July 1, 1981 and June 30, 1982. Because the locations on these maps are fairly precise, these maps are not for public distribution. The serious threat of vandalism, discussed in the Management Plan necessitates that we require Commission approval prior to any public dissemination. For this reason, this map series is bound separately from the main report.

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Site #	Quadrangle	Designation
924 686	Quonochontaug	3 3 4
688	Kingston	4
925	. 11	4
826	п	
922	H	4 3 2 4 3 3 3 3 4 3 4 3 4 3 4 3
801A		2
876 -	Narragansett	4
928	Narragansett	3
691	11	3
914	11	4
875	I R	3
95	11	3
874	Tiverton	3
503	East Greenwich	3
505	#1 11	3
687	31	4
696		
921	Bristol	4
693	Providence	4
929	••	3

Table 2. Prehistoric sites added to Rhode Island's Coastal Zone inventory during July 1, 1981-June 30, 1982.

III. PREDICTIVE MODELING ON JAMESTOWN ISLAND

3.1 Overview

An important component of the Management Plan is the development and application of predictive models. The 1982 final yearly report contains predictive models for several categories of material culture within the Jamestown Archeological District (Figure 2). The research involved in developing these models was conducted by Dr. E. Pierre Morenon at Rhode Island College with a survey and planning grant from the Commission. These models can be used to provide developers with information concerning the expected complexity of archeological resources in a given area. Dr. Morenon predicts that areas within the coastal zone containing fresh water are likely to contain sites of the greatest complexity. Because of their complexity these areas are likely to pose the most severe constraints to development. Morenon also recommends that a cross-section of environmental zones be preserved so that a full range of various site types can be preserved.

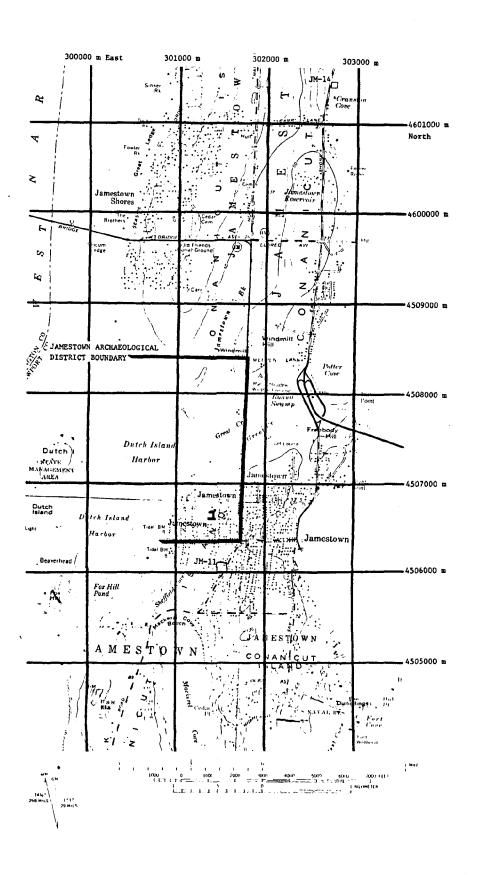
3.2 Predictive Models for Prehistoric Settlements: the Jamestown Archeological District*

Three environmental variables were selected for predicting settlement locations. These variables are distance from fresh water, distance from salt water and slope percent. They were selected for a number of reasons:

- 1. ease of coding and precision,
- 2. usefulness in developing predictive models for other locations,
- 3. previous research suggesting the strength of these variables and,
- 4. assumed relationship to resources critical to human utilization of the region.

^{*}Authored by Dr. E. Pierre Morenon, Department of Anthropology and Geography, Rhode Island College. Research supported by a survey and planning grant from RIHPC.

Figure 2



All of these variables can be coded for any space in Rhode Island directly from USGS topographic maps. They also are relatively resistant to modification and hence are logically more useful than other variables which have been highly altered since aboriginal times. Present plant or animal distributions, for example, would seem to be weak variables under modern conditions in Rhode Island. These important sources of information have been highly disturbed by recent activities. Perhaps more important precise locational information for these variables are not available for most areas in the state.

The ability to gain quick access to and exert precise control over predictive variables should not be ignored. Topographic maps, for example, may even be preferable to aerial photographs when it comes to developing predictive models. All agencies and most individuals can find ready access to maps when more accurate photographs remain illusive. Because maps have been made in Rhode Island over a long time period, it may even be able to extract precise environmental data for time periods preceeding the effects of major land modification in the region. The Beers (1870) or Everts and Richards (1895) maps for Rhode Island could represent an interesting standardized reference for predictive modeling in this region.

Earlier work in other regions (Morenon et al 1975) and well-established views in New England (Robinson 1980) suggest that fresh water, salt water and topographic relief may be useful variables for inferring the location of pre-historic "sites". Although in many cases there is no mechanism for determining how these variables should be used or how in fact to predict site locations, there is certainly ample justification in using these variables over other variables. Some suggestions are noted here concerning the reliability of other predictive variables.

- 1. Variables which can be converted into interval or ratio scales are most powerful. Hence, the presence or absence of a resource (soil type A, stream rank 1, etc.) is probably less powerful a variable than a ratio or interval (percent of soil type A, distance to stream rank 1).
- 2. Variables which can be consistently measured create less of a problem of observer error. Soil fertility, for example, as inferred from soil types on maps probably is less useful a measure than would be soil fertility which is actually measured along a continuum (% phosphate, porosity...)
- 3. Variables which can be directly measured in reference to archaeological assemblages are likely to be most sensitive. For example,
 distance from the center of an archaeological site to salt water. It
 is difficult, however, to precisely determine which variables are in
 operation for very large archaeological sites. Under such conditions
 using smaller arbitrary spaces is advisable. This, of course, implies
 that large areas can be conveniently reduced to smaller units. If the
 areas that are to be predicted are very large, then considerable environmental diversity will be present.

4. The archaeological site which is to be predicted must be consistently described in terms of one or more attributes, along the lines suggested in points 1-3 above. The site should be described quantitatively (site size, number of artifacts). It should be something that is consistently measured. And the size of the site should be either small or viewed in terms of small spaces. Controlling the variability of what is to be predicted (the archaeological manifestation) is as important as controlling the predictive variables.

It is assumed that the three variables used to predict in the JAD represent variables which measure resources critical to past populations. Fresh water is a resource of direct importance, but has indirect implications. Plant and animal resources on the Island can be assumed to vary with increasing distance from fresh water with the greatest diversity of critical species falling near to or being dependent upon springs, ponds and streams. Salt water similarly has direct and indirect impacts on resources. A variety of animal forms depend upon the sea. In addition, salt water and fresh water resources are negatively related to one another. Thus, as one approaches the sea, fresh water resources diminish. This provides a critical choice for organisms dependent upon both. Slope conditions are similarly complex. Soil and plant conditions are influenced by water run off and erosion. Steep slopes are typically avoided by animals where efficiency of movement is considered. Patterns of movement, for example, can be assumed to occur where energy efficiency is maximum. On the other hand, steep slopes on Conanicut Island often are associated with rock outcrops which are important sources for some lithic resources (quartz outcrops). Where these outcrops are on the coast, distance from salt water should negatively correlate with slope percent (meters to sea is low while slope percent is high). A careful examination of the association between the various predictive variables will support most of these general points (Table]).

Table 3: Correlation Coefficients (r) and Summary Statistics for Environmental Variables Used to Predict Settlement Locations for Sixteen Random 100 Meter Areas in the Jamestown Archaeological District.

•	Distance to Salt Water	Slope Percent
Distance to (r)	608	278
Fresh Water (p)	.006	.148
Distance to (r)	•	.369
Salt Water (p)		.080
	Mean	Standard Deviation
Number Meters to Fresh Water	335.938	259.379
Number Meters to Salt Water	362.813	199.624
Slope Percentage	1.862	.811

It is evident from the preceeding information (Table 3) that fresh water and salt water resources are negatively related to one another. Fresh water is also restricted on more steeply sloped surfaces which are most often close to the sea. However, what is particularly noteworthy is the low amounts of fresh water within the Jamestown Archaeological District. In contrast to Rhode Island as a whole, and particularly the northern portion of the state, fresh water is not abundant. Thus, on an average one must travel over three hundred (335.938) meters from any point in the JAD. The corresponding average from the state is 240.000 meters (Morenon 1980). Because Conanicut Island is isolated from other land masses the restricted water resources may constitute a true. limiting factor (Odum 1971) which is particularly useful for settlement prediction. On the other hand, distance to salt water or slope conditions would appear not to be limiting factors on Conanicut Island. Obviously, salt water is much more available to any location within the Jamestown Archaeological District (12533.000 meters for Rhode Island; Morenon 1980). Slope conditions are not extreme on Conanicut Island (2.296 percent for Rhode Island; Morenon 1980).

Table 4 presents information on the relationship between the environmental variables selected in this study and several "cultural variables." Hit percentage (number of test pits with lithic artifacts/total test pits dug) and lithic percentage (number of lithic artifacts recovered/total test pits dug) reveal the greatest sensitivity to distances to fresh water and salt water. Random sample areas closest to fresh water and farthest from salt water have the greatest density of artifacts and the greatest degree of "clustering." It is noteworthy that other categories of material culture exhibit the same relationships,

Table 4: Correlation Coefficients (r) for Environmental Variables and Cultural Variables for Sixteen Random 100 Meter Sample Areas in the Jamestown Archaeological District.

<u>Cultural Variables</u>	Fresh Water	Salt Water	Slope <u>Percentage</u>
Hit Percentage	** 701	** .621	.302
Lithic Percentage	**611	** . 507	.308
Shell Weight	199	.077	.286
Modern Number	230	.290	023
Ceramic Number	.015	051	415
Lithic Weight .	410	.350	.448
Non-Quartz Number	~.315	.042	.019
Core Number	422	.412	.323
Primary Flake Number	403	.393	.042
Tool Number	Ò22	154	050

^{*} significant at <.05

although the strengths of these correlations are not significant.

Although the environmental variables when taken individually do exhibit some associations with various categories of prehistoric material culture, the correlation coefficients are not as strong as one might desire. It is possible, as noted earlier in this section , to examine prehistoric

^{**} significant at <.01

material remains in terms of combinations of environmental variables. These combined variables have stronger correlations, resulting in predictive models which are more powerful.

In this sutdy a multiple-linear regression statistic (Nie et al: 1979) is used. Such an approach enables one to determine the accuracy and reliability of the model through an examination of the resulting correlation statistic (r) and the exact probability of that correlation (a) for the particular sample size. Many (Table 5) of the models are accurate and reliable. This indicates

Table 5: Predictive Models for Several Categories of Material Culture Within the Jamestown Archaeological District Where A is Fresh Water, B is Salt Water and C is Slope Percentage.

Prediction	Model	Multiple R		
Hit Percentage (All JAD, 16)	.36140006A + .0004B + .0250C	.745		
Lithic Number " " "	24.02620459A + .0216B + 3.8656C	.645		
Shell Weight " " "	16.13880341A0328B + 13.8137C	.340		
Lithic Number (North JAD, 8)	47.84130428A + .2234B - 8.3496C	.619		
Lithic Number (South JAD, 8)	53.84731281A0581B + 19.8065C	.878		
Lithic Number (Sites JAD, 4)	413.91575977A4878B + 4.9584C	1.000		
Shell Weight " " "	4310.5600 - 5.8198A - 5.9444B - 40.3527C	1.000		

that with the three environmental variables it is possible to understand with great reliability where different density distributions are located in the study area as a whole, as well as the known sites. Even though a sample was used to develop these models it is very likely that the rest of the area which was not studied conforms to the model. The models for the Jamestown Archeological District as a whole, North and South of the Great Creek and Site Areas are very similar to one another. Multiple R values of 1.0000 for the sites indicate that it is very possible to predict the location of complex and dense artifact concentrations. Predicting settlement locations within the Jamestown Archaeological District provides a strong mechanism for interpreting the behavior of past populations as well as managing archaeological resources on Conanicut Island.

Management Considerations for Settlements

It has been demonstrated that settlements in the Jamestown Archaeological District actually consist of small (less than 25 meter area) artifact clusters. These clusters range from singular occurrences which are typically lithic artifact scatters to groups of clusters which contain a variety of archaeological resources. These groupings of clusters in space represent important focal points where complex activities took place in the past. In the Jamestown Archaeological District the known sites provide good examples of these places. The isolated clusters represent important loci where more limited activities occurred in the past.

When small (25 meter) areas are studied with the intensity of the Jamestown Project (1979) it can be anticipated that approximately fifty percent of those areas within the Jamestown Archaeological District will contain no archaeological

į,

resources (Figure 3). Focusing only upon those areas where complex archaeological resources are known to be present, approximately one-third of the small areas will contain no demonstrable archaeological remains. This information clearly indicates that the Jamestown Archaeological District contains archaeological resources which are abundant and pervasive throughout the whole area.

The patterning of data within the JAD is predictable. Fresh water sources have been shown to be a limiting factor which strongly associates with artifactual information (Table 4). When fresh water, salt water and slope percentage are combined it is possible to predict lithic artifact densities and clusters with considerable certainty (Table 5). It appears that lithic artifact densities and clusters representing complex archaeological resources (sites) can be predicted with the greatest degree of assurance. Thus, the rarer locations containing the greatest mix of diverse remains appear to be the places which are easiest to predict within the Jamestown Archaeological District.

The relationships between different classes of artifacts are straightfoward (Table 4). Lithic artifact density or the percentage of test pits containing lithic artifacts (hits) are two measures which correlate with a variety of other remains (shellfish, ceramics, lithic material types...). Thus, simply knowing how many lithic artifacts occur within a defined space provides a mechanism for anticipating other resources within the Jamestown Archaeological District. Areas with high lithic artifact densities are likely to be areas which also contain domestic and subsistence related resources. Figure 3 which provides a schematic overview of artifact density for the JAD can be used to estimate locations within the Jamestown Archaeological District which have the greatest variety of artifact classes. These areas of diversity also have the greatest potential for future research. However, managing only areas with complex resources (sites) in the future would limit research. Much of the prehistoric behavior that took place within the JAD resulted in data which was not left at "sites" and cannot be understood by simply studying sites.

The following points represent a strategy for managing prehistoric settlement data within the Jamestown Archaeological District:

- 1. Future field investigation should minimally focus on twenty-five meter spaces. There should be sufficient testing to evaluate these small areas: A five or ten meter interval between test excavations is necessary under these constraints.
- 2. Future field investigations should <u>minimally</u> include strategies which enable researchers to describe consistently lithic artifact densities and distributions. These measures are strongly related to other artifact classes and can be used to anticipate the range of resources present.
- 3. Protecting the most complex archaeological resources can be facilitated by restraining development in proximity to fresh water sources. Locations within 200 meters of streams, springs and wetlands represent areas with the most complex prehistoric remains.
- 4. The least complex resources are pervasive. A sample of these abundant resources should be preserved by carefully setting aside a cross-section of different environmental zones. This could be done in conjunction with a concern for habitat protection.

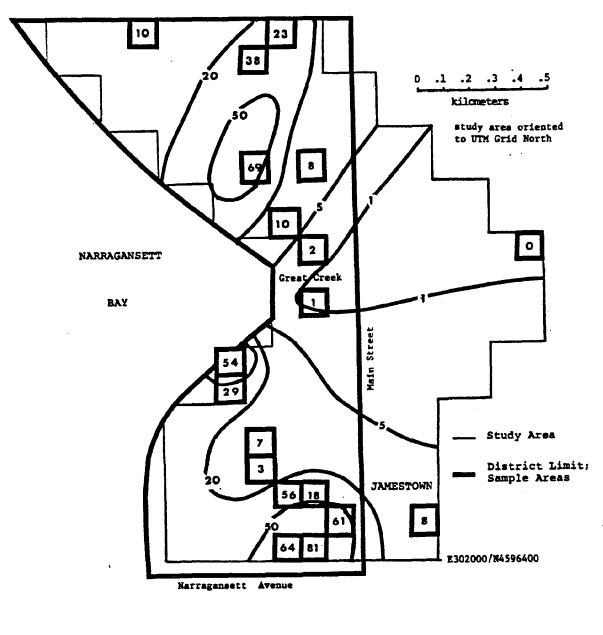


Figure 3: Projected Lithic Artifact Counts and Contour Intervals within the Jamestown Archaeological District. Number per twenty-eight test excavations.

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IV. LANDOWNER INVOLVEMENT

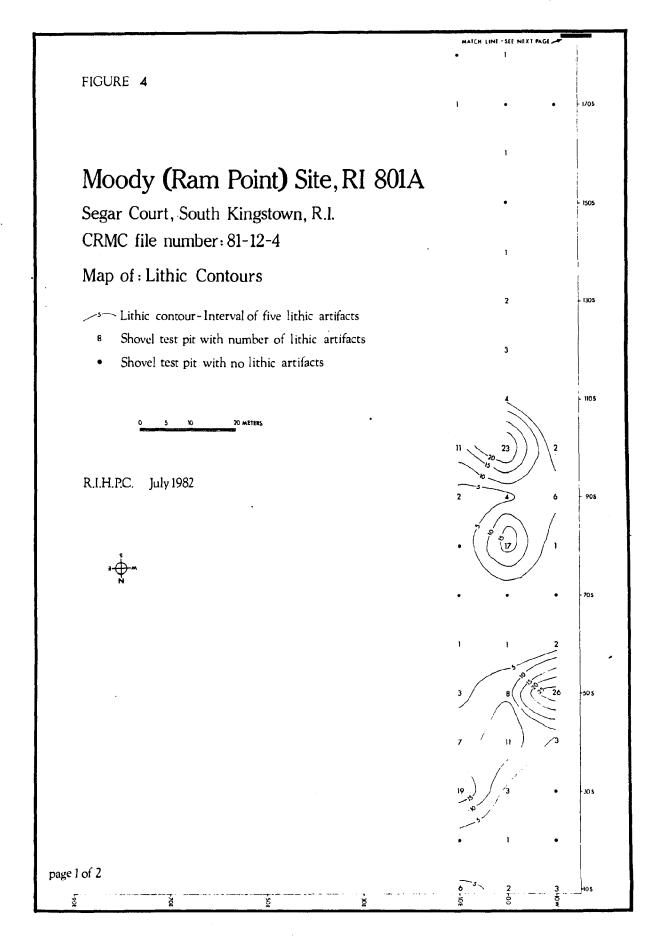
An important component of the management plan is landowner cooperation and assistance in protecting archeological resources. During the past year the Commission conducted intensive testing on eleven prehistoric sites. Of these eleven, four are considered potentially eligible for the National Register. Consultation is underway with these four landowners to develop protection plans. The Moody site, RI 801A, is discussed below to illustrate how site information is presented to a landowner so that informed decisions can be made about protection strategies.

The Moody site was intensively tested in May and June, 1982. Shellfish from a prehistoric midden had been observed eroding from the site during an initial inspection. The landowner and the Council were informed that the midden's presence indicated a strong liklihood that significant remains were present and that the Commission would carry out the testing needed to order to make a significance evaluation.

Intensive testing was carried out using a 10 meter x 10 meter grid system of shovel test pits. This standard technique (described in the 1981 Management Plan) indicated several clusters of artifacts and features (hearths, storage or refuse pits, shell middens--see figures 4,5,6). By contouring artifact frequencies and indicating the locations of features, figures 4 and 5 can be used to discuss protection strategies with the landowner:

- encourage protection of features
- encourage protection of high or diverse clusters of artifacts

Discussions with the landowner will occur in the fall of 1982 and the results reported in the 1983 final yearly report.



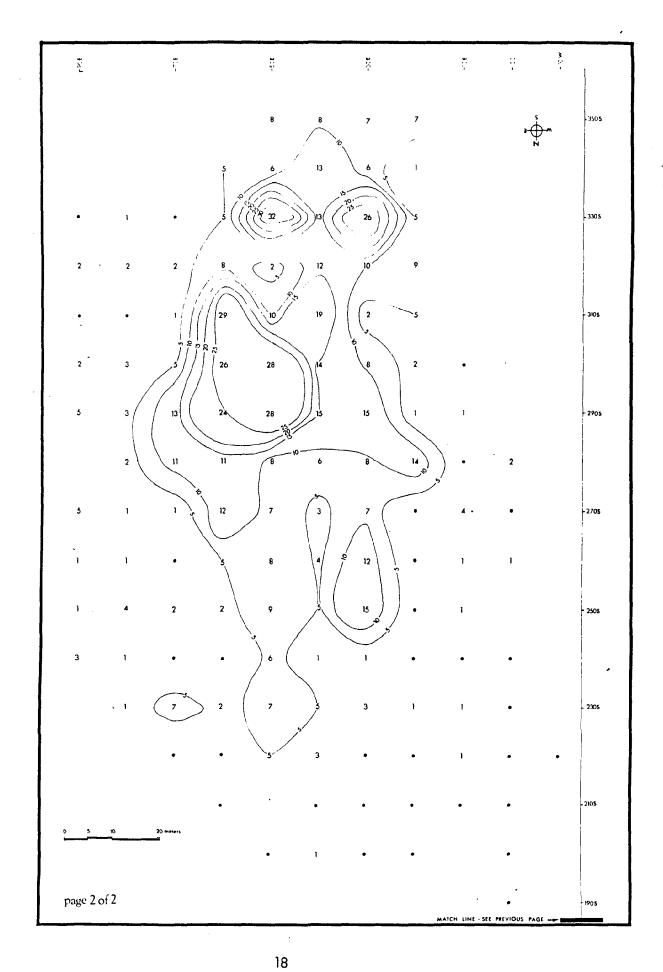
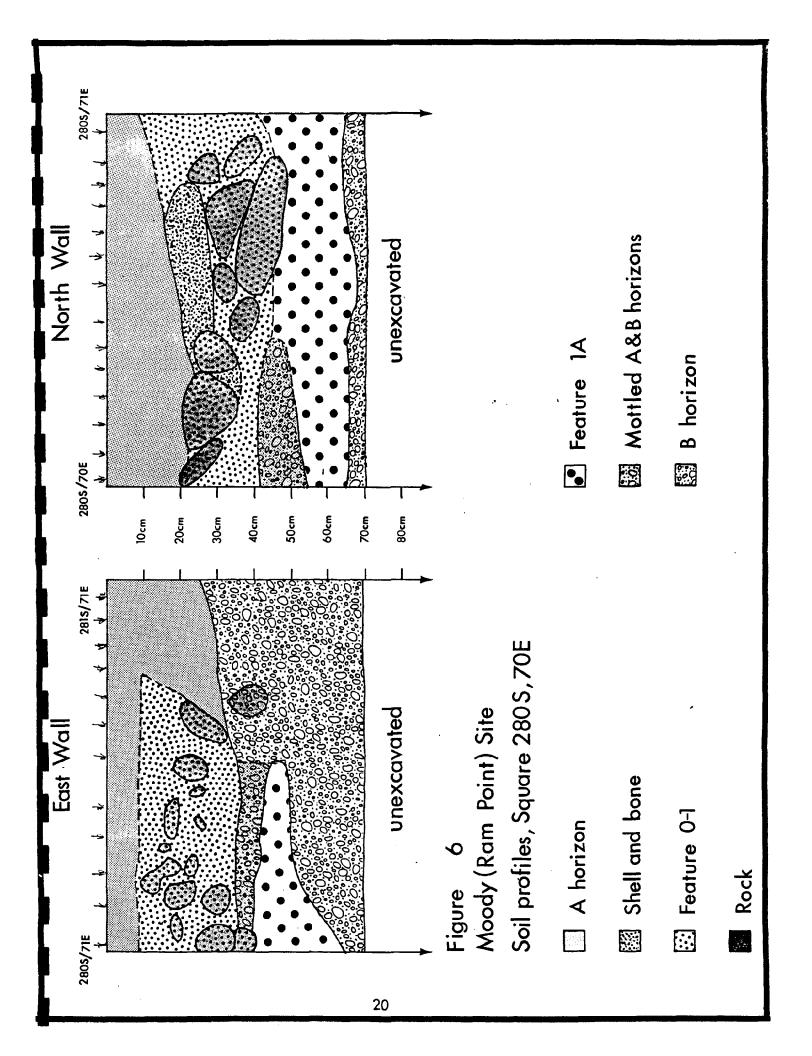


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V. SUMMARY

During 1982 the Commission made progress in three of the four major components of the 1981 Management Plan:

- 1. Permit reviews continued and was expanded in January to include preapplications as well as formal applications:
- 2. Predictive modeling continued and Dr. Morenon's models developed for the Jamestown Archeological District.
- 3. Landowner cooperation resulted in continued protection of the Jobin site, R1-76 and positive consultations on four other National Register eligible sites. In addition, an initiative was made to protect sites around Potter Pond through the Sycamore Cove Land Association (see Appendix 2).

We hope to continue these efforts during the 1983 grant year, focusing on developing predictive models for the South County area. As funding levels decrease, the role of predictive models as economical guides to development should become more prominent. Reliable models such as those developed by Dr. Morenon can be used as rational guides to development, reducing the need for field investigations minimizing the costs of site recovery, and minimizing unecessary destruction of archeological resources.

VI. BIBLIOGRAPHY

Morenon, E. Pierre, editor
1980 Studies within the Narragansett Basin:
Results and Perspectives. Papers presented at
the Northeastern Anthropological Association,
Amherst.

Morenon, E. Pierre, et. al.
1975 The Development of Conservation Techniques and a
Land Use Study Conducted near Ranchos De Taos, New Mexico

Nie, Norman H., et. al. 1979 Statistical Package for the Social Sciences, 3rd edition. McGraw-Hill

Odum, Eugene P. 1971 Fundamentals of Ecology. 3rd Edition. W. B. Saunders Company, Philadelphia

Robinson, Paul A.
1980 Archeological Predictions: the Prehistoric Period in
Archeological Assessment Survey for the Reconstruction
of Route 116/146. Ms. on file at RIHPC

Robinson, Paul A.
1981 A Management Plan for Prehistoric Archeological
Resources in Rhode Island's Coastal Zone. Rhode Island
Historical Preservation Commission, Providence.

Appendix 1:

Task 6.5, subject area 1

312 Review Letter from Commission to Coastal Zone Management Program

July 21, 1982

Mr. Leo R. McAloon, Jr. Coastal Resources Management Program 60 Davis Street Providence, RI 02908 RE: Draft Evaluation Findings 1981

Dear Mr. McAloon:

Thank you for the draft evaluation of the CRMC's program during 1981. Our comments are as follows:

We appreciate the favorable comments (p. 13) concerning the Management Plan for prehistoric archeological resources, and we hope the plan will serve to enhance the Council's ability to protect the archeological resources of the coastal zone.

The proposed outback in archeological survey and assessment activities, however, may have the opposite effect. The Council does not have any staff resources to evaluate the impact of proposed projects on cultural properties, unlike the effort devoted to engineering and the natural environment. Instead, the Council has relied upon the Historical Preservation Commission, through comment for above-ground resources, and contractual arrangment for archeology.

With the proposed reduction in funding from \$10,000.00 to \$2,500.00, the Commission will no longer be able to visit all the permit sites where there is a probability of archeological resources. Nor will the Commission be able to consult as extensively with landowners to preserve significant sites through project re-design. Unfortunately, the Council will be returning to its former status, in that it will be making permit and planning decisions without site-specific information on cultural resources in most cases. This is a clear downgrading of cultural resource protection as a priority of the Council, and should be explained as such in the evaluation.

As you know, the Historical Preservation Commission has objected to the Council's treatment of above-ground cultural resources as well (see enclosed letter dated 9 July 1982 from the Commission to John Lyons). Especially concerning condominium development in Newport, the Council has consitently rejected the findings and advice of the Historical Preservation Commission, indicating again a downgrading of

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with respect to the preservation of cultural resources in the coastal zone. This topic should also be explored in the evaluation, both in terms of the Council's responsibilities to these resources, and the Council's relations with cooperating agencies, which supply the Council with the information needed to evaluate permit applications.

Concerning "streamlining," the evaluation fails to mention the improved coordination with the Historical Preservation Commission initiated after the 312 meetings, whereby the Commission now reviews all preapplications.

Thank you for this opportunity to comment.

Sincerely,

Eric Hertfelder Deputy State Historic Preservation Officer

/dn

Enclosure

Appendix 2:

Task 6.5, Subject Area 13

Letter from Commission to Sycamore Cove Association



HISTORICAL PRESERVATION COMMISSION Old State House 150 Benefit Street Providence, R.I. 02903 (401) 277-2678

June 25, 1982

Mr. Seth Gifford President, Sycamore Cove Association Sycamore Lane South Kingstown, RI 02879

Dear Mr. Gifford:

During the past two years we have conducted small-scale archeological investigations in the Appleby and Moody lots off Segar Court. The results have been very interesting - we have established the time of year prehistoric peoples lived in the area, uncovered evidence about their dietary customs, and are submitting specimens from a shellfish midden to a lab for carbon 14 dating.

I was talking to Mrs. Tucker this week and she was interested in learning more about the objects we have recovered and what they can tell us about past aboriginal cultures. She suggested I contact you and offer to present our findings at the next meeting of the Sycamore Cove Association. The Cove and Potter Pond contain excellent examples of prehistoric settlements. We are beginning to unravel the details of how prehistoric people used the area and I would be delighted to share with the Association our findings to date.

I was also discussing with Mrs. Tucker various strategies for reducing uncontrolled digging at prehistoric sites around the cove. The Moody property has been significantly damaged by unauthorized people looking for prehistoric artifacts. This digging not only constitutes a property tresspass, but also reduces the possibility of conducting scientific archeological investigations.

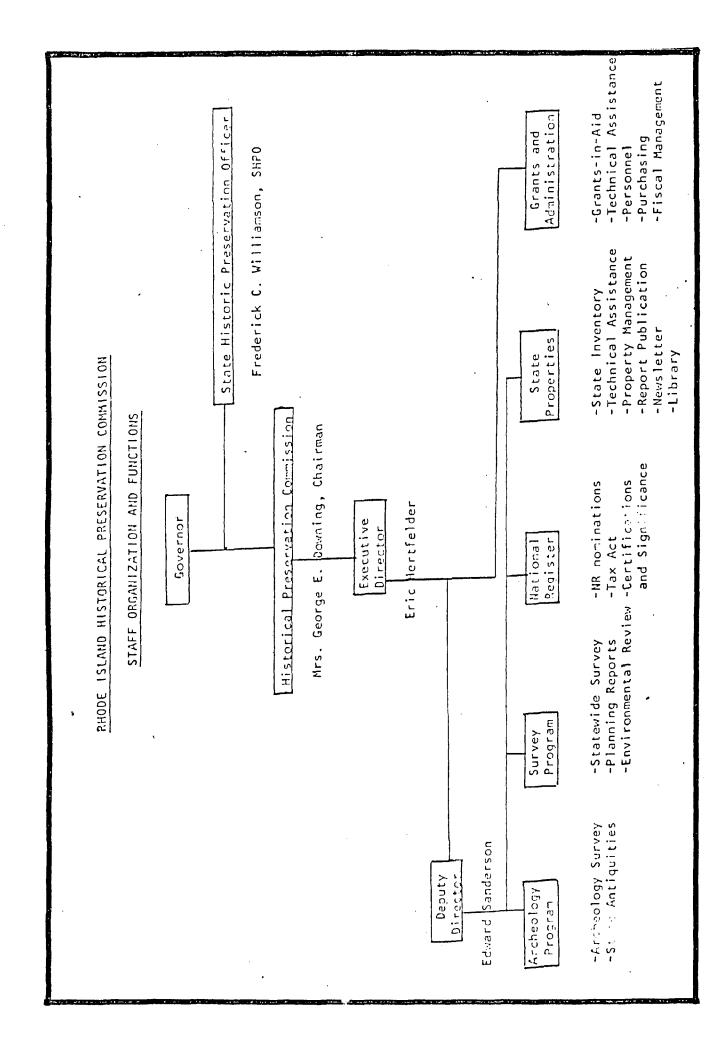
The prehistory of your area is diverse and complex -one that I find exciting. I would enjoy speaking to the
Association about our discoveries and in developing a
strategy for protecting the area from further damage from
relic collectors.

Sincerely,

Paul Robinson State Archeologist Appendix 3: Subject Area 20, Task 6.5, Commission Organizational Chart

The attached chart shows staff organization and functions. A list of individuals within each program is attached. Note that Paul Robinson, archeology program, is funded by Federal CZM funds.

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Appendix 4: Permits processed, sites located, and Monitoring Activities (Task 6.5, subject area 2)

Subject Area 2, Task 6.5, Monitoring Activities, January 1 - June 30, 1982

- o Number of permits received: '113
- o Archeological sites discovered: 4
- o Sites in process of being nominated to National Register: 1
- o Sites determined eligible to the National Register: 0
- o Average processing time per application: 10 days
- o Action taken to simplify the permitting process:
 The Commission notifies the permit applicant that a
 field inspection will be undertaken and a brochure
 explaining the importance of archeological resources
 is attached to the letter. This procedure allows
 archeological inspection to be scheduled at the convenience
 of the landowner, thereby reducing the possibility of
 delays due to misunderstandings between landowners
 and the archeologists.

The Rhode Island Historical Preservation Commission 150 Benefit Street Providence, Rhode Island 02903

(401) 277-2678

Frederick C. Williamson, State Historic Preservation Officer

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